Tips for Daylighting with Windows

These guidelines provide an integrated approach to the cost-effective design of perimeter zones in new commercial buildings. They function as a quick reference for designers through a set of easy steps and rules-of-thumb, emphasizing "how-to" practical details. References are given to more detailed sources of information, should the reader wish to go further.

No guidelines can answer all possible questions from all types of users. However, this document addresses the most commonly occurring scenarios. The guidance here is limited by the medium; short paper documents can only go so far in assisting a designer with a unique project. This document has been carefully shaped to best meet the needs of a designer when time does not permit a more extensive form of assistance.

The design method used in this document emphasizes that building decisions should be made within the context of the whole building as a single functioning system rather than as an assembly of distinct parts. This *integrated* design approach looks at the ramifications of each individual system decision on the whole building. For example, the glazing selection will have an effect on lighting, mechanical, and interior design. Therefore, the entire design team should participate in and influence this decision—which typically rests with the architect alone. The benefit of an integrated design approach is a greater chance of success towards long term comfort and sustained energy savings in the building.

Begin with Section 1 to review how these guidelines work.

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Provisos

These guidelines cannot answer all questions for all projects, however they aim to address the most frequently raised questions for most projects.

These guidelines are primarily applicable to typical commercial buildings with office-like occupancy (includes schools, laboratories and other working environments), standard construction, and windows as the primary source of natural light (skylights are not addressed in this version).

These guidelines are primarily applicable to new construction. They may apply to some retrofit projects, if used with caution.

These guidelines were developed for California climates and latitudes, however advice may be appropriate in other regions.

These guidelines are distinguished from existing material in their how-to focus and their explicit support of design integration. Background material (basic principles, for example) is not included.

The design professional is ultimately responsible for all design decisions. The user is assumed to have a basic knowledge of lighting and daylighting principles.

Advice is given in a simplified, rule-of-thumb format. More detailed and accurate assistance is best provided by an expert consultant or an advanced computer tool.

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